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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF	:
KIYOSHI YOSHIZUMI, ET AL.	: EXAMINER: HODGE, ROBERT W.
SERIAL NO: 10/050,866	:
FILED: JANUARY 18, 2002	: GROUP ART UNIT: 1795
FOR: ONBOARD FUEL CELL SYSTEM AND METHOD OF DISCHARGING HYDROGEN-OFF GAS	:

PETITION UNDER 37 CFR §1.144 TRAVERSING RESTRICTION/ELECTION REQUIREMENT DATED MARCH 2, 2009, AND SUBSEQUENTLY MADE FINAL IN THE OFFICE ACTION DATED JUNE 4, 2009

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Pursuant to 37 CFR §1.144, Applicants respectfully petition for withdrawal of the restriction/election requirement dated March 2, 2009, and subsequently made final in the Office Action dated June 4, 2009. Applicants traversed the requirement and gave reasons in the Response filed March 30, 2009.

In addition, Applicants further traverse and petition regarding the Examiner's withdrawal of claims 13, 54-57 and 59-62. Applicants had indicated these claims as readable upon the elected species, however, the Examiner nevertheless withdrew these claims from consideration. These claims were improperly withdrawn, and moreover, there is no undue burden with respect to examining these claims, particularly since some of the claims include subject matter purportedly previously examined.

The requirement is traversed on several grounds. First, the Office Action asserts, as is required for an Election of Species Requirement, that the species are mutually exclusive characteristics. Applicants respectfully disagree with the assertion that the species are mutually exclusive, and therefore, the requirement to elect from among the species is erroneous.

By way of example, the Office Action asserts that the Species 1b, 2b, and 3b are mutually exclusive species. However, 1b relates to increasing the flow of oxygen-off gas, and 2b relates to the use of a compressor for the oxygen-off gas. However, the use of a compressor is a way to increase the flow of oxygen-off gas, and therefore, the assertion that these species are mutually exclusive is erroneous.

Moreover, the Office Action asserts that Species 3b, relating to feeding of hydrogen-off gas and oxygen-off gas to the mixing portion is mutually exclusive to Species 1b and 2b, however, this assertion is also erroneous, because an increased flow of oxygen can be provided, for example, with a compressor, and this increased oxygen flow can also be fed to the mixing portion together with feeding of hydrogen-off gas being fed to the mixing portion.

By way of example, and not to be construed as limiting, in the first full sentence of the paragraph bridging pages 22 and 23 of the present specification, it is described that hydrogen-off gas is mixed with oxygen-off gas in the mixing portion, and moreover, this is in conjunction with increasing the flow rate of the oxygen-off gas "as described above ... ." Further, in the preceding discussion in the specification (i.e., "described above" in the specification) the increased flow of oxygen-off gas is provided by driving the compressor. See, e.g., pages 21-22, and particularly the first sentence of the second full paragraph of page 21. Accordingly, the assertion that Species 1b-3b are mutually exclusive is erroneous.

The Office Action also asserts that the Species 1a-5a are mutually exclusive, however, this assertion is also erroneous. For example, the opening or closing of a valve (Species 1a) in accordance with an elapsed time is not mutually exclusive with respect to the amount of time that the valve is open. By way of example again, and not to be construed as limiting, as set forth in the paragraph bridging pages 19 and 20, on the basis of an elapsed time it can be determined that the concentration of impurities in circulating hydrogen has reached an unallowable condition, and in response, the control portion 50 opens the valve 414 -- and thus opening is based on an elapsed time. The duration for which the valve is open can then be determined based on a predetermined time, for example, less than one second. (See the last sentence of the paragraph bridging pages 19 and 20). The assertion that the Species 1a and 2a are mutually exclusive is erroneous, they are simply different features, but they are not mutually exclusive species.

Further, the "mutually exclusive" assertion is erroneous as to Species 3a in which the opening of the valve is provided such that a concentration of hydrogen is reduced. This feature is also not mutually exclusive with respect to the other species. For example, the first full paragraph of page 19 indicates that the opening and closing of the valve 414 is so as to control the concentration (or dilution) of the hydrogen, and moreover, the second full paragraph of page 19 indicates that the methods described thereinafter are provided in order to reduce the hydrogen concentration and avoid ignition. Further, with respect to Species 4a, repeated open and closing, this method is also utilized for controlling the concentration or dilution of hydrogen (Species 3a), and also for controlling a mixing amount of hydrogen-off gas and oxygen-off gas (Species 5a). Also, by way of example, in describing the repeated opening and closing (for example, in the paragraph bridging pages 23 and 24 of the present specification), this is one of the methods which is identified at page 19 as being utilized for

controlling the concentration or dilution amount of the hydrogen when mixed in the mixing portion. Further, the last two sentences of the paragraph bridging pages 23 and 24 specifically describe this repeated opening and closing as providing a mixed gas which is discharged at a sufficiently low hydrogen concentration to more reliably avoid ignition. The fact that these species are not mutually exclusive, is also apparent from the fact that, for example, claim 62 relating to the repeated opening and closing depends from claim 58, reciting reducing of the concentration of hydrogen. The claims are simply to different levels of specificity -- not mutually exclusive species.

It is respectfully submitted that the features identified in the Office Action are different features of the present invention or recited in different levels of specificity, and it is respectfully submitted that the assertion that Species 1a-5a are each mutually exclusive with respect to each other is erroneous, and moreover, the assertion that the Species 1b-3b are mutually exclusive with respect to each other is also erroneous. Accordingly, the election of species requirement is traversed on this basis.

The Election of Species requirement is additionally traversed in that the Office Action fails to establish a proper basis for requiring election. Specifically, the Office Action merely provides conclusory statements that there would be a serious or undue burden, but fails to provide any support. Moreover, the Office Action cites issues as allegedly constituting a burden which are not recognized or available for establishing a burden as set forth in MPEP 808.02 (see also MPEP 808.01(a), which confirms that 808.02 is applicable to species elections). For example, the Office Action asserts that the different species "are likely to raise different non-prior art issues under 35 USC §101 and/or 35 USC §112 first paragraph." First, the Office Action fails to establish how such issues are "likely." Moreover, such assertions are possible whenever there are multiple claims or different features set forth in

different claims, but the possibility that such issues might arise by the presentation of different claims or different claimed features is not proper basis for asserting a restriction or election of species requirement. Accordingly, it is respectfully submitted that the Office Action fails to establish any serious or undue burden would be required in examining all claims together, and moreover, the assertions of the Office Action are not a proper basis for requiring a restriction/election.

A still further reason for which the election is improper is that this application has already been examined, and the Office Action fails to establish how any serious or undue burden is required based upon, particularly as to subject matter which has already been searched and examined. Indeed, claim 13 was previously purported to have been examined through final rejection in the Office Action dated December 6, 2007, but now is withdrawn.

Moreover, claim 60 includes the feature in which the control portion increases a flow of oxygen-off gas such that an increased flow is provided when the valve is opened (i.e., the valve through which hydrogen-off gas is supplied to the mixing portion). Claims 11 and 12 were previously examined, and each includes, in the final paragraph the recitation of the control portion increasing the oxygen-off gas when the valve is opened, see particularly the last paragraph of claim 11. In fact, in response to a decision on a previously filed petition in this case a previous restriction requirement was already determined to be incorrect, and the Examiner already was directed to examine the subject matter of claims 11 and 12.[1] See the decision on petition mailed September 8, 2006. If the entire subject matter of claims 11 and 12 were purportedly previously examined, there clearly should be no undue burden in

[1] Claims 11 and 12 were subsequently withdrawn by virtue of modification of their dependencies to depend from non-elected claims. However, the fact remains that the subject matter of claims 11 and 12 were previously examined and also were previously determined to have been improperly withdrawn, and thus, there should be no undue burden in examining the subject matter of claim 60.

examining the subject matter of claim 60, which includes a portion of the subject matter set forth in claim 11.

Finally, it is submitted that the withdrawal of claims 13, 54-57 and 59-62 is additionally improper, in that these claims read upon the elected species (or the elected species is generic thereto). The elected species include Species 3a ("open or close the valve such that the concentration of hydrogen is reduced" as stated at p. 2 of the March 2, 2009 Restriction/Election requirement) and Species 3b ("feeding hydrogen-off gas and oxygen-off gas to the mixing portion" as also set forth at p. 2. of the March 2, 2009 Office Action.). Each of the withdrawn claims is within the elected species as described below.

Claim 13 recites that the control portion includes means for opening and closing the valve at relatively short intervals. When delivering the discharged oxygen-off gas to the mixing portion the opening and closing of the valve relates to opening and closing of the valve which feeds the hydrogen-off gas to the mixing portion. As discussed in the paragraph bridging pages 23 and 24 of the present specification, the repeated opening and closing of the valve for the hydrogen-off gas has the effect of reducing the hydrogen concentration -- and the opening and closing of the valve to reduce hydrogen concentration is exactly that which is set forth in Species 3a. See particularly the last two full sentences of page 23, the sentence bridging pages 23 and 24, and the first two sentences of page 24 of the specification. Thus, the subject matter of claim 13 is clearly within the elected species.

Clam 54-57 and 59 relate to opening of the valve according to elapsed times, time intervals, or predetermined times, and it is submitted that these features also relate to opening or closing of the valve so that concentration of hydrogen is reduced. Clearly, control of the timing during which the hydrogen-off gas is allowed to flow through the valve will also result in a reduction of a hydrogen concentration, and moreover, there is nothing inconsistent in

these claims with respect to the elected species. Further, the last three sentences of the paragraph bridging pages 19 and 20 of the present specification relate to opening of the valve for a predetermined opening time or elapsed time, and this is in conjunction with feeding of hydrogen-off gas through the valve 414 in order to reduce the concentration of hydrogen (see the first full sentence of page 21).

Claims 60 and 61 provide opening of valve (i.e., the valve for the hydrogen-off gas) when there is an increased flow of oxygen-off gas. There also is provided so that the concentration of hydrogen is reduced because the opening of the hydrogen valve is at a time when the oxygen flow is increased. In other words, the hydrogen flows when there is an increased flow of oxygen-off gas such that the hydrogen-off gas would be sufficiently diluted. See the paragraph bridging pages 20 and 21 of the present specification. The withdrawal of claims 60 and 61 was improper.

Finally, as discussed earlier, the repeated opening and closing of the hydrogen-off valve is also to provide a reduced hydrogen concentration. Claim 62 includes the feature in which the valve is repeatedly opened and closed, and additionally states that the opening and closing occurs until a predetermined time elapses. This also is provided in order to open and close the valve so that the hydrogen concentration is reduced. Specifically, as set forth in the paragraph bridging pages 23 and 24 of the present specification, the valve 414 is opened and closed at intervals of a relatively short period until a predetermined time has elapsed. As a result, as set forth in the first full sentence of page 24, the concentration of hydrogen contained in the mixed gases is reduced. Accordingly, the features of claim 62 are also readable on the elected species.

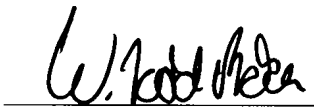
For the above reasons, it is respectfully submitted that the election of species requirement dated March 2, 2009 and subsequently made final in the June 4, 2009 Office

Action should be withdrawn, and moreover, the improper of withdrawal of claims 13, 54-57 and 59-62 should be corrected and these claims should be examined.

The Director is hereby authorized to charge any additional fees which may be required for the papers being filed herewith to Deposit Account No. **15-0030** and for which no payment is enclosed herewith.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



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